

REMARKS

This is in response to the Office Action that was mailed on June 20, 2006. A typographical error is corrected in the specification. Non-narrowing typographical or grammatical adjustments are made to claims 1, 7, 13, 19, and 21. Support for the amendments to the claims is addressed in the discussion of the claim objections, below. No new matter is added by this Amendment. Entry of this Amendment in order to place the application into condition for allowance – or in order to reduce the issues for appeal – is earnestly solicited. Claims 1-24 are pending in the application.

Telephonic Interview

Applicant gratefully acknowledges the courtesies extended by Examiner Such to his representative, Richard Gallagher, during a telephonic interview on September 11, 2006. During the interview, it was explained that Rmax is not an absolute value of the thickness but instead is a value relative to the thickness. The recited feature relating to flow-starting temperature was also discussed. Examiner Such kindly indicated that he understood Applicant's position with respect to these features and that it would be taken into consideration when he considered the present amendments to the claims.

Specification

The spelling of the word "promoter" on page 12 of the specification has been corrected.

Claim Objections

Claims 1, 7, 13, 19, and 21 have been amended to obviate the objections thereto. With respect to the use of the expression "temperature +40°C" in the claims, that language means a temperature that is 40°C higher than the temperature referred to in the claims. That is, the claim language "the flow-starting temperature +40°C" means a temperature which is 40°C higher than the flow-starting temperature. Compare e.g. disclosure in lines 5-7 on page 24 of the specification ("The re-heating temperature is preferably within a range of the transfer temperature $\pm 50^{\circ}\text{C}$ ").

Claim rejections - 35 USC § 112, ¶ 1

Claims 7 and 19 were rejected under the first paragraph of 35 USC § 112 due to their addition of the term “support” into the claims. The terminology in question is removed from the claims, thereby obviating this ground of rejection.

Claim rejections - 35 USC § 112, ¶ 2

Claims 1, 3, 7, 9, 13, 15, 19, and 21 were rejected under the second paragraph of 35 USC § 112 as failing to define the invention properly. The Examiner expressed concern about the recitation in the claims of the language "assuming that". In their immediate context, the claims recite the phrase "assuming that the thickness of said organic layer is 100". In their broader context, this simply and clearly provides a basis for comparison of two layers to one another. One layer is the organic layer mentioned, which is stated to have a thickness of the dimensionless number "100". The claims go on to compare the roughness of a substrate layer to the thickness of that organic layer. Assuming that the thickness of the organic layer is 100 (unitless), the roughness of the substrate layer is specified to be "0 to 50" (also unitless). If the thickness of the organic layer were 200 nm, the roughness of the substrate layer would be 0 to 100 nm, while if the thickness of the organic layer were 50 nm, the roughness of the substrate layer would be 0 to 25 nm. Thus, it does not matter what the actual thickness of the organic layer is in the context of the claims. What is significant is that – whatever the thickness of the organic layer – the roughness of the substrate layer is no more than "half" thereof ("50" versus "100"). Applicant respectfully submits that this is clear from the language and context of the claims themselves and from the supporting disclosure.

Prior Art Rejection

Claims 1-24 were rejected under 35 U.S.C. §102(b) as being anticipated by US 2003/0049560 A1 to Nirmal et al. (“Nirmal”). Office Action, pages 5-7. The rejection is respectfully traversed.

With respect to the organic layer of the present invention, Nirmal merely discloses that “The donor substrate, in at least some instances, is flat so that uniform coatings can be formed”. Paragraph [0027]. From a technical point of view, the present invention is superior to the

technology disclosed by Nirmal with respect to transferability of the light-emitting organic layer and laminatability of the organic electroluminescent device. That is, the present invention provides important features based upon a transfer material that is capable of transferring the light-emitting organic layer formed on a support. In the transfer material of this invention, (1) both the glass transition temperature and the flow-starting temperature of the organic layer is in a specified range, and (2) a relative value (ratio) of maximum surface roughness R_{max} of the substrate used to the thickness of the organic layer (assuming that the thickness of the organic layer is 100) is in a range of 0-50.

Implicitly admitting that Nirmal fails to teach the surface roughness limitation of the present claims, the Examiner argues that the claims herein do “not limit that the surface roughness of the first substrate be 0 to 50 every case, but only when the assumption is made that the organic layer is 100 thick”.

The claim language in question is: “said first substrate has a maximum surface roughness R_{max} of 0 to 50 obtained from a ratio of a maximum surface roughness R_{max} (nm) of said first substrate to the thickness (nm) of said organic layer assuming that the thickness of said organic layer is 100”. The language in question provides a basis for comparison of two layers to one another – similar to the general comparison provided by the concept of “percent”. With percent, the amount of a number of units of interest is compared to a theoretical amount of 100 units. Similarly, in the present situation, one layer is the organic layer mentioned, which is stated for comparison purposes to have a thickness of “100”. The claims go on to compare the roughness of a substrate layer to the thickness of that organic layer. It does not matter what the actual thickness of the organic layer is in this context. What is significant is that – whatever the thickness of the organic layer – in accordance with the present invention, the roughness of the substrate layer is no more than *half* thereof (“50” versus “100”, or 50%).

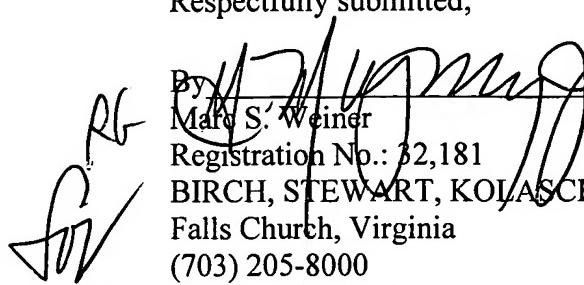
Nirmal neither teaches nor suggests an important feature of the present invention – a “first substrate [which] has a maximum surface roughness R_{max} of 0 to 50 obtained from a ratio of a maximum surface roughness R_{max} (nm) of said first substrate to the thickness (nm) of said organic layer assuming that the thickness of said organic layer is 100”. Accordingly, in the absence of demonstrating that this feature is found in the prior art, the Examiner has failed to state a sustainable rejection against any of Applicant’s claims.

Conclusion

Applicant respectfully submits that the present amendments and arguments serve to obviate all objections and rejections of record. Should there be any questions, the Examiner is invited to contact Richard Gallagher, Registration No. 28,781, at (703) 205-8008.

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Respectfully submitted,


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